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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,950	01/09/2002	Wilfred F. Brake	100110176-1	6376

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HEWLETT-PACKARD COMPANY  
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EXAMINER

DO, ANH HONG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/043,950

Applicant(s)

BRAKE ET AL.

Examiner

ANH H DO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/9/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the camera" in line 5. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Queiroz et al. (U.S. Patent No. 6,058,210) in view of Ferguson (U.S. Patent No. 6,052,555).

Regarding claim 1, Queiroz discloses:

- configuring a JPEG engine and performing JPEG processing on an uncompressed digital image to produce byte-aligned data, and reading this data

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(col. 7, lines 59-62, teaching an optional resource defined by JPEG comprising a specific and byte-aligned sequence of bits, and implicitly read to be inserted into the compressed bit stream).

Queiroz does not disclose expressly converting the JPEG data to MPEG data.

Ferguson discloses converting the JPEG data to MPEG data by transmitting different groups of JPEG compressed frame data to different processors for MPEG processing (col. 10, lines 1-3).

Queiroz & Ferguson are combinable because they are from JPEG encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to convert the JPEG data to MPEG data in Queiroz as taught by Ferguson.

The suggestion/motivation for doing so would have been to detect and handle processing interruptions due to subscriber uses of their cable set-top boxes, without unduly slowing the compression process (Ferguson, col. 2, lines 18-20).

Therefore, it would have been obvious to combine Queiroz with Ferguson to obtain the invention as specified in claim 1.

Regarding claim 2, Ferguson teaches storing the MPEG data in an MPEG file to archival storage 54 (col. 5, lines 1-3).

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Regarding claim 3, Queiroz teaches adding file header information to the MPEG file (col. 10, lines 41-43, teaching initializing a header in the MPEG file by a 4-byte sequence).

Regarding claim 8, Queiroz discloses:

- means for obtaining an uncompressed digital image (Fig. 1 shows a data compression system 4 for obtaining uncompressed digitized video signals);
- means for performing and configuring the JPEG processing to produce a byte-aligned data stream (col. 7, lines 59-62, teaching an optional resource defined by JPEG comprising a specific and byte-aligned sequence of bits).

Queiroz does not disclose expressly means for converting the byte-aligned JPEG data stream to a data stream representing an MPEG I-frame.

Ferguson discloses converting the JPEG data to MPEG data by transmitting different groups of JPEG compressed frame data to different processors for MPEG processing (col. 10, lines 1-3).

Queiroz & Ferguson are combinable because they are from JPEG encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to convert the JPEG data to MPEG data in Queiroz as taught by Ferguson.

The suggestion/motivation for doing so would have been to detect and handle processing interruptions due to subscriber uses of their cable set-top boxes, without unduly slowing the compression process (Ferguson, col. 2, lines 18-20).

Therefore, it would have been obvious to combine Queiroz with Ferguson to obtain the invention as specified in claim 8.

5. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Queiroz et al. (U.S. Patent No. 6,058,210) in view of Ferguson (U.S. Patent No. 6,052,555) and further in view of Mitchell et al. (U.S. Patent No. 6,373,412).

Regarding claim 4, although Queiroz and Ferguson teach as in claim 1 above, they do not specifically teach Huffman code tables.

Mitchell teaches JPEG engine is accomplished by specifying table generating values that are used by JPEG engine to generate Huffman code tables (col. 5, lines 28-34, teaching JPEG standard beginning with a byte-aligned hexadecimal byte followed by Huffman tables).

Queiroz & Ferguson and Mitchell are combinable because they are from JPEG encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to generate Huffman code tables in Queiroz and Ferguson as taught by Mitchell.

The suggestion/motivation for doing so would have been to accomplish Huffman encoding in much reduced time with reduced processing resources and hardware (Mitchell, col. 4, lines 11-14).

Therefore, it would have been obvious to combine Queiroz and Ferguson with Mitchell to obtain the invention as specified in claim 4.

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Regarding claim 5, although Ferguson teaches converting byte-aligned JPEG data to MPEG data as discussed in claim 1 above, neither Ferguson nor Queiroz specifically teach a conversion tables being used for conversion.

Mitchell teaches providing Huffman code tables (corresponding to the conversion tables) for performing entropy encoding (which implicitly converts JPEG standard data to MPEG data) (col. 5, lines 17-20).

Queiroz & Ferguson and Mitchell are combinable because they are from JPEG encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to provide conversion tables in Queiroz and Ferguson as taught by Mitchell.

The suggestion/motivation for doing so would have been to accomplish Huffman encoding in much reduced time with reduced processing resources and hardware (Mitchell, col. 4, lines 11-14).

Therefore, it would have been obvious to combine Queiroz and Ferguson with Mitchell to obtain the invention as specified in claim 5.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liang (U.S. Patent No. 6,445,823) in view of Queiroz et al. (U.S. Patent No. 6,058,210) and Ferguson (U.S. Patent No. 6,052,555).

Regarding claims 6 and 7, Liang discloses:

- a video camera 202 implicitly includes a lens focusing light and an electronic array light sensors for receiving light from the lens (Fig. 7);

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- a logic unit included in compressor 208, which may be a digital signal processor (corresponding to the claimed microprocessor system), for controlling the camera 202 and receive image information from the light sensor (implicitly included in the camera 202) (Fig. 7 and col. 8, lines 55-63).

Liang does not specifically teach producing a byte-aligned JPEG data stream and converting it to MPEG data stream representing an MPEG I-frame.

Queiroz discloses configuring a JPEG engine and performing JPEG processing on an uncompressed digital image to produce byte-aligned data (col. 7, lines 59-62, teaching an optional resource defined by JPEG comprising a specific and byte-aligned sequence of bits).

And Ferguson discloses converting the JPEG data to MPEG data by transmitting different groups of JPEG compressed frame data to different processors for MPEG processing (col. 10, lines 1-3).

Liang and Queiroz & Ferguson are combinable because they are from JPEG encoding method.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to produce a byte-aligned JPEG data stream and convert it to MPEG data in Liang as taught by Queiroz and Ferguson.

The suggestion/motivation for doing so would have been to decrease the bits required for coding with little compensation required in decoding and can be used for JPEG and MPEG I-frames (Liang, col. 3, lines 1-3).

Therefore, it would have been obvious to combine Liang with Queiroz and Ferguson to obtain the invention as specified in claims 6 and 7.



***Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Mitchell et al. (US. Patent No. 6,373,412).

Regarding claims 9, 10, 11 and 12, Mitchell discloses Huffman tables comprising Huffman codes, each Huffman code having a following bit pattern, the combined lengths of each Huffman code and corresponding bit pattern being an integer multiple of 8 bits (col. 7, lines 48-53, teaching Huffman code in Huffman tables would be to take 16 consecutive bits, and Fig. 2 shows AC and DC tables).

Regarding claims 13 and 14, Mitchell discloses a lookup table that correlates byte-aligned JPEG AC and DC and following bits with equivalent MPEG AC and DC coefficient codes (col. 5, lines 64-66, teaching providing LUTs to index into fields Huffman tables, which correlates a byte-aligned JPEG AC and DC coefficient codes as in col. 5, lines 28-35, and Figs. 2 shows AC and DC tables).

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***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 13, 2004.



**ANH HONG DO**  
**PRIMARY EXAMINER**